(a) attaching an expansion linker to a common ligand, wherein said common ligand binds to a cofactor binding site and wherein said expansion linker has sufficient length and orientation to direct a second ligand to a specificity site of a receptor in said receptor family, to form a module, wherein said receptor is an enzyme;

(b) generating a population of bi-ligands, wherein said bi-ligand comprises said module and a second ligand linked by said expansion linker;

(c) screening said population of bi-ligands for binding to a receptor in said receptor family;

(d) identifying a bi-ligand that binds to and has specificity for said receptor; and

(e) repeating steps (c) and (d) to identify a bi-ligand that binds to and has specificity for a second receptor in said receptor family.

11. (Amended) The method of claim 9, wherein said receptor in said receptor family is an enzyme selected from the group consisting of a kinase, dehydrogenase, oxidoreductase, GTPase, carboxyl transferase, acyl transferase, decarboxylase, transaminase, racemase, methyl transferase, formyl transferase, and α-ketodecarboxylase.